**ETORICOXIB**

- **Generic (Trade Name):** Etoricoxib (Arcoxia®, MK-663)
- **Manufacturer:** Merck
- **Indication:** For the treatment of osteoarthritis, rheumatoid arthritis, acute and chronic pain and dysmenorrhea.
- **Current Regulatory Status:** This drug is currently in Phase III clinical trials. New drug application in the U.S. was applied for in early October, 2001. The company has not yet disclosed the status of etoricoxib in Canada.
- **Description:** Etoricoxib is a non-steroidal anti-inflammatory drug (NSAID) with relative selectivity for cyclooxygenase (COX-2). It is considered by Merck to be the most COX-2 selective “coxib” in clinical development. *In vitro* studies show it has greater selectivity than rofecoxib and celecoxib. *In vitro* metabolism studies suggest it undergoes methylhydroxylation that is largely catalyzed by CYP3A, and N-oxidation as a relatively minor pathway. CYP2C9, CYP2C19, CYP2D6 and CYP1A2 are minor contributing pathways. Etoricoxib was found to be a weak inhibitor of CYP pathways.
- **Current Treatment(s):** There are numerous COX non-selective NSAIDs available on the market: ibuprofen, naproxen, diclofenac, and more recently, the COX-2 selective NSAIDs rofecoxib and celecoxib. Regardless of selectivity, these agents provide anti-inflammatory and analgesic effects. While evidence is not yet conclusive, the COX-2 selective agents are thought to minimize gastrointestinal side effects by virtue of their selective mechanism of action that excludes effects on COX-1.
- **Cost:** The cost of this agent is not currently available in either Canada or the U.S. as it has not yet reached the market.
- **Evidence:** Two studies have been reported in abstract form investigating etoricoxib as compared to placebo or naproxen (500 mg bid) in the treatment of rheumatoid arthritis. Doses of 90-120 mg daily of etoricoxib were shown to provide significantly better improvements in primary and secondary endpoints including disease activity, assessment of pain, disability, and American College of Rheumatology (ACR) 20 responders. It was well tolerated in the 12-week study. Another two studies, also reported in abstract form, describe the use of etoricoxib 30-90 mg daily as compared to placebo or 60 mg as compared to naproxen 500 mg bid in patients with osteoarthritis of the knee or hip. Etoricoxib was found to be best at doses of at least 60 mg daily and was found to be better than placebo and similar to naproxen when evaluated by the Western Ontario and McMaster Universities Osteoarthritis Index.
Etoricoxib (WOMAC) and pain and physical functional subscales. Etoricoxib was well tolerated for the 52 weeks of follow-up. Single dose etoricoxib 120 mg has been shown to be better than placebo and at least as effective as naproxen 550 mg, or acetaminophen 600 mg/codeine 60 mg when used for analgesia following tooth extraction.

Commentary

There is little published data on etoricoxib at this time. Most clinical information is derived from abstracts presented at meetings. Preliminary evidence suggests this agent may have a role in some of the indications that are being sought in the U.S.

*In vitro* data suggests this coxib is more selective than those currently marketed in Canada (rofecoxib and celecoxib). Rather than a benefit, this enhanced selectivity may be a cause for concern, as an increased incidence of serious adverse events, including heart attack and thrombosis, have been observed in larger proportions of patients taking the most selective coxib currently available compared with naproxen. The reason why more selective inhibitors of COX-2 may pose a health risk has been discussed by Mukherjee.

References:


